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SEQUENCE LISTING

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<120> EXPRESSION VECTOR, HOST, FUSED PROTEIN, PROCESS FOR PRODUCING
FUSED PROTEIN AND PROCESS FOR PRODUCING PROTEIN

<130> Q83564

<150> PCT/JP2003/008020
<151> 2003-06-25

<150> JP 2002-185020
<151> 2002-06-25

<160> 30

<170> PatentIn version 3.3

<210> 1
<211> 257
<212> PRT
<213> Pyrococcus horikoshii

<400> 1

Met Lys Val Glu Arg Gly Asp Val Ile Arg Leu His Tyr Thr Gly Arg
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Val Lys Glu Thr Gly Gln Ile Phe Asp Thr Thr Tyr Glu Glu Val Ala
20 25 30

Lys Glu Ala Gly Ile Tyr Asn Pro Lys Gly Ile Tyr Gly Pro Val Pro
35 40 45

Ile Ile Val Gly Ala Gly His Val Ile Ser Gly Leu Asp Lys Arg Leu
50 55 60

Val Gly Leu Glu Val Gly Lys Lys Tyr Thr Leu Glu Val Pro Pro Glu
65 70 75 80

Glu Gly Phe Gly Leu Arg Asp Pro Lys Leu Ile Lys Val Phe Thr Met
85 90 95

Gly Gln Phe Arg Lys Gln Gly Ile Val Pro Phe Pro Gly Leu Glu Val
100 105 110

Glu Val Thr Thr Asp Asn Gly Arg Lys Met Lys Gly Arg Val Ile Thr
115 120 125

Val Ser Gly Gly Arg Val Arg Val Asp Phe Asn His Pro Leu Ala Gly
130 135 140

Lys Thr Leu Ile Tyr Glu Val Glu Ile Val Glu Lys Ile Glu Asp Pro
145 150 155 160

Ile Glu Lys Ile Lys Ala Leu Ile Glu Leu Arg Leu Pro Met Ile Asp
165 170 175

Arg Asp Lys Val Ile Ile Glu Val Gly Glu Lys Asp Val Lys Val Asn
180 185 190

Phe Gly Glu Gln Asp Val Asp Pro Lys Thr Leu Ile Leu Gly Glu Ile
195 200 205

Leu Leu Glu Ser Asp Ile Lys Phe Leu Gly Tyr Glu Lys Val Glu Phe
210 215 220

Lys Pro Ser Val Glu Glu Leu Leu Arg Pro Lys Gln Glu Glu Pro Val
225 230 235 240

Glu Glu Glu Lys Lys Glu Glu Gln Glu Glu Ser Glu Glu Ala Gln Ser
245 250 255

Ser

<210> 2
<211> 157
<212> PRT
<213> Methanococcus jannaschii

<400> 2

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Leu Glu Val Asp Gly Lys Val Ile Asp Thr Ser Ile Glu Glu Val Ala
20 25 30

Lys Glu Asn Lys Ile Tyr Tyr Pro Glu Arg Glu Tyr Glu Pro Ile Gly
35 40 45

Phe Ile Val Gly Asn Gly Glu Leu Ile Glu Gly Phe Glu Glu Ala Val
50 55 60

Ile Gly Met Glu Val Gly Glu Glu Lys Thr Val Thr Ile Pro Pro Glu
65 70 75 80

Lys Gly Tyr Gly Leu Arg Asp Glu Arg Leu Ile Gln Glu Ile Pro Lys
85 90 95

Glu Met Phe Ala Asp Ala Asp Phe Glu Pro Gln Glu Gly Met Leu Ile
100 105 110

Leu Ala Ser Gly Ile Pro Ala Lys Ile Ile Lys Val Thr Asp Asp Thr
115 120 125

Val Thr Leu Asp Phe Asn His Glu Leu Ala Gly Lys Glu Leu Lys Phe
130 135 140

Thr Ile Lys Val Arg Asp Val Gln Pro Ala Glu Ser Glu
145 150 155

<210> 3
<211> 432
<212> PRT
<213> Escherichia coli

<400> 3

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Val Asn Val Ala Lys Lys Val Arg Ile Asp Gly Phe Arg Lys Gly Lys
35 40 45

Val Pro Met Asn Ile Val Ala Gln Arg Tyr Gly Ala Ser Val Arg Gln
50 55 60

Asp Val Leu Gly Asp Leu Met Ser Arg Asn Phe Ile Asp Ala Ile Ile
65 70 75 80

Lys Glu Lys Ile Asn Pro Ala Gly Ala Pro Thr Tyr Val Pro Gly Glu
85 90 95

Tyr Lys Leu Gly Glu Asp Phe Thr Tyr Ser Val Glu Phe Glu Val Tyr
100 105 110

Pro Glu Val Glu Leu Gln Gly Leu Glu Ala Ile Glu Val Glu Lys Pro
115 120 125

Ile Val Glu Val Thr Asp Ala Asp Val Asp Gly Met Leu Asp Thr Leu
130 135 140

Arg Lys Gln Gln Ala Thr Trp Lys Glu Lys Asp Gly Ala Val Glu Ala
145 150 155 160

Glu Asp Arg Val Thr Ile Asp Phe Thr Gly Ser Val Asp Gly Glu Glu
165 170 175

Phe Glu Gly Gly Lys Ala Ser Asp Phe Val Leu Ala Met Gly Gln Gly
180 185 190

Arg Met Ile Pro Gly Phe Glu Asp Gly Ile Lys Gly His Lys Ala Gly
195 200 205

Glu Glu Phe Thr Ile Asp Val Thr Phe Pro Glu Glu Tyr His Ala Glu
210 215 220

Asn Leu Lys Gly Lys Ala Ala Lys Phe Ala Ile Asn Leu Lys Lys Val
225 230 235 240

Glu Glu Arg Glu Leu Pro Glu Leu Thr Ala Glu Phe Ile Lys Arg Phe
245 250 255

Gly Val Glu Asp Gly Ser Val Glu Gly Leu Arg Ala Glu Val Arg Lys
260 265 270

Asn Met Glu Arg Glu Leu Lys Ser Ala Ile Arg Asn Arg Val Lys Ser
275 280 285

Gln Ala Ile Glu Gly Leu Val Lys Ala Asn Asp Ile Asp Val Pro Ala
290 295 300

Ala Leu Ile Asp Ser Glu Ile Asp Val Leu Arg Arg Gln Ala Ala Gln
305 310 315 320

Arg Phe Gly Gly Asn Glu Lys Gln Ala Leu Glu Leu Pro Arg Glu Leu
325 330 335

Phe Glu Glu Gln Ala Lys Arg Arg Val Val Val Gly Leu Leu Leu Gly
340 345 350

Glu Val Ile Arg Thr Asn Glu Leu Lys Ala Asp Glu Glu Arg Val Lys
355 360 365

Gly Leu Ile Glu Glu Met Ala Ser Ala Tyr Glu Asp Pro Lys Glu Val
370 375 380

Ile Glu Phe Tyr Ser Lys Asn Lys Glu Leu Met Asp Asn Met Arg Asn
385 390 395 400

Val Ala Leu Glu Glu Gln Ala Val Glu Ala Val Leu Ala Lys Ala Lys
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Val Thr Glu Lys Glu Thr Thr Phe Asn Glu Leu Met Asn Gln Gln Ala
420 425 430

<210> 4

<211> 1299

<212> DNA

<213> Escherichia coli

<400> 4

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<210> 5
<211> 270
<212> PRT
<213> Escherichia coli

<400> 5

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Ala Leu His Ala Pro Ile Thr Phe Ala Ala Glu Ala Ala Lys Pro Ala
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Thr Ala Ala Asp Ser Lys Ala Ala Phe Lys Asn Asp Asp Gln Lys Ser
35 40 45

Ala Tyr Ala Leu Gly Ala Ser Leu Gly Arg Tyr Met Glu Asn Ser Leu
50 55 60

Lys Glu Gln Glu Lys Leu Gly Ile Lys Leu Asp Lys Asp Gln Leu Ile
65 70 75 80

Ala Gly Val Gln Asp Ala Phe Ala Asp Lys Ser Lys Leu Ser Asp Gln
85 90 95

Glu Ile Glu Gln Thr Leu Gln Ala Phe Glu Ala Arg Val Lys Ser Ser
100 105 110

Ala Gln Ala Lys Met Glu Lys Asp Ala Ala Asp Asn Glu Ala Lys Gly
115 120 125

Lys Glu Tyr Arg Glu Lys Phe Ala Lys Glu Lys Gly Val Lys Thr Ser
130 135 140

Ser Thr Gly Leu Val Tyr Gln Val Val Glu Ala Gly Lys Gly Glu Ala
145 150 155 160

Pro Lys Asp Ser Asp Thr Val Val Asn Tyr Lys Gly Thr Leu Ile
165 170 175

Asp Gly Lys Glu Phe Asp Asn Ser Tyr Thr Arg Gly Glu Pro Leu Ser
180 185 190

Phe Arg Leu Asp Gly Val Ile Pro Gly Trp Thr Glu Gly Leu Lys Asn
195 200 205

Ile Lys Lys Gly Gly Lys Ile Lys Leu Val Ile Pro Pro Glu Leu Ala
210 215 220

Tyr Gly Lys Ala Gly Val Pro Gly Ile Pro Pro Asn Ser Thr Leu Val
225 230 235 240

Phe Asp Val Glu Leu Leu Asp Val Lys Pro Ala Pro Lys Ala Asp Ala
245 250 255

Lys Pro Glu Ala Asp Ala Lys Ala Ala Asp Ser Ala Lys Lys
260 265 270

<210> 6
<211> 813
<212> DNA
<213> Escherichia coli

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<210> 7
<211> 428
<212> PRT
<213> Escherichia coli

<400> 7

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20 25 30

Asn Asn Gly Val Val Leu Glu Ser Asp Val Asp Gly Leu Met Gln Ser
35 40 45

Val Lys Leu Asn Ala Ala Gln Ala Arg Gln Gln Leu Pro Asp Asp Ala
50 55 60

Thr Leu Arg His Gln Ile Met Glu Arg Leu Ile Met Asp Gln Ile Ile
65 70 75 80

Leu Gln Met Gly Gln Lys Met Gly Val Lys Ile Ser Asp Glu Gln Leu
85 90 95

Asp Gln Ala Ile Ala Asn Ile Ala Lys Gln Asn Asn Met Thr Leu Asp
100 105 110

Gln Met Arg Ser Arg Leu Ala Tyr Asp Gly Leu Asn Tyr Asn Thr Tyr
115 120 125

Arg Asn Gln Ile Arg Lys Glu Met Ile Ile Ser Glu Val Arg Asn Asn
130 135 140

Glu Val Arg Arg Arg Ile Thr Ile Leu Pro Gln Glu Val Glu Ser Leu
145 150 155 160

Ala Gln Gln Val Gly Asn Gln Asn Asp Ala Ser Thr Glu Leu Asn Leu
165 170 175

Ser His Ile Leu Ile Pro Leu Pro Glu Asn Pro Thr Ser Asp Gln Val
180 185 190

Asn Glu Ala Glu Ser Gln Ala Arg Ala Ile Val Asp Gln Ala Arg Asn
195 200 205

Gly Ala Asp Phe Gly Lys Leu Ala Ile Ala His Ser Ala Asp Gln Gln
210 215 220

Ala Leu Asn Gly Gly Gln Met Gly Trp Gly Arg Ile Gln Glu Leu Pro
225 230 235 240

Gly Ile Phe Ala Gln Ala Leu Ser Thr Ala Lys Lys Gly Asp Ile Val
245 250 255

Gly Pro Ile Arg Ser Gly Val Gly Phe His Ile Leu Lys Val Asn Asp
260 265 270

Leu Arg Gly Glu Ser Lys Asn Ile Ser Val Thr Glu Val His Ala Arg
275 280 285

His Ile Leu Leu Lys Pro Ser Pro Ile Met Thr Asp Glu Gln Ala Arg
290 295 300

Val Lys Leu Glu Gln Ile Ala Ala Asp Ile Lys Ser Gly Lys Thr Thr
305 310 315 320

Phe Ala Ala Ala Ala Lys Glu Phe Ser Gln Asp Pro Gly Ser Ala Asn
325 330 335

Gln Gly Gly Asp Leu Gly Trp Ala Thr Pro Asp Ile Phe Asp Pro Ala
340 345 350

Phe Arg Asp Ala Leu Thr Arg Leu Asn Lys Gly Gln Met Ser Ala Pro
355 360 365

Val His Ser Ser Phe Gly Trp His Leu Ile Glu Leu Leu Asp Thr Arg
370 375 380

Asn Val Asp Lys Thr Asp Ala Ala Gln Lys Asp Arg Ala Tyr Arg Met
385 390 395 400

Leu Met Asn Arg Lys Phe Ser Glu Glu Ala Ala Ser Trp Met Gln Glu
405 410 415

Gln Arg Ala Ser Ala Tyr Val Lys Ile Leu Ser Asn
420 425

<210> 8
<211> 1287
<212> DNA
<213> Escherichia coli

<400> 8
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<210> 9
<211> 459
<212> PRT
<213> Homo sapiens

<400> 9

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			20			25					30				

Val Leu Lys Val Ile Lys Arg Glu Gly Thr Gly Thr Glu Met Pro Met
35 40 45

Ile Gly Asp Arg Val Phe Val His Tyr Thr Gly Trp Leu Leu Asp Gly
50 55 60

Thr Lys Phe Asp Ser Ser Leu Asp Arg Lys Asp Lys Phe Ser Phe Asp
65 70 75 80

Leu Gly Lys Gly Glu Val Ile Lys Ala Trp Asp Ile Ala Ile Ala Thr
85 90 95

Met Lys Val Gly Glu Val Cys His Ile Thr Cys Lys Pro Glu Tyr Ala
100 105 110

Tyr Gly Ser Ala Gly Ser Pro Pro Lys Ile Pro Pro Asn Ala Thr Leu
115 120 125

Val Phe Glu Val Glu Leu Phe Glu Phe Lys Gly Glu Asp Leu Thr Glu
130 135 140

Glu Glu Asp Gly Gly Ile Ile Arg Arg Ile Gln Thr Arg Gly Glu Gly
145 150 155 160

Tyr Ala Lys Pro Asn Glu Gly Ala Ile Val Glu Val Ala Leu Glu Gly
165 170 175

Tyr Tyr Lys Asp Lys Leu Phe Asp Gln Arg Glu Leu Arg Phe Glu Ile
180 185 190

Gly Glu Gly Glu Asn Leu Asp Leu Pro Tyr Gly Leu Glu Arg Ala Ile
195 200 205

Gln Arg Met Glu Lys Gly Glu His Ser Ile Val Tyr Leu Lys Pro Ser
210 215 220

Tyr Ala Phe Gly Ser Val Gly Lys Glu Lys Phe Gln Ile Pro Pro Asn
225 230 235 240

Ala Glu Leu Lys Tyr Glu Leu His Leu Lys Ser Phe Glu Lys Ala Lys
245 250 255

Glu Ser Trp Glu Met Asn Ser Glu Glu Lys Leu Glu Gln Ser Thr Ile
260 265 270

Val Lys Glu Arg Gly Thr Val Tyr Phe Lys Glu Gly Lys Tyr Lys Gln
275 280 285

Ala Leu Leu Gln Tyr Lys Lys Ile Val Ser Trp Leu Glu Tyr Glu Ser
290 295 300

Ser Phe Ser Asn Glu Glu Ala Gln Lys Ala Gln Ala Leu Arg Leu Ala
305 310 315 320

Ser His Leu Asn Leu Ala Met Cys His Leu Lys Leu Gln Ala Phe Ser
325 330 335

Ala Ala Ile Glu Ser Cys Asn Lys Ala Leu Glu Leu Asp Ser Asn Asn
340 345 350

Glu Lys Gly Leu Phe Arg Arg Gly Glu Ala His Leu Ala Val Asn Asp
355 360 365

Phe Glu Leu Ala Arg Ala Asp Phe Gln Lys Val Leu Gln Leu Tyr Pro
370 375 380

Asn Asn Lys Ala Ala Lys Thr Gln Leu Ala Val Cys Gln Gln Arg Ile
385 390 395 400

Arg Arg Gln Leu Ala Arg Glu Lys Lys Leu Tyr Ala Asn Met Phe Glu
405 410 415

Arg Leu Ala Glu Glu Asn Lys Ala Lys Ala Glu Ala Ser Ser Gly
420 425 430

Asp His Pro Thr Asp Thr Glu Met Lys Glu Glu Gln Lys Ser Asn Thr
435 440 445

Ala Gly Ser Gln Ser Gln Val Glu Thr Glu Ala
450 455

<210> 10
<211> 1380
<212> DNA
<213> Homo sapiens

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<210> 11
 <211> 370
 <212> PRT
 <213> Homo sapiens

<400> 11

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							20		25				30		

Val	Leu	Glu	Leu	Phe	Ala	Asp	Ile	Val	Pro	Lys	Thr	Ala	Glu	Asn	Phe
							35		40			45			

Arg Ala Leu Cys Thr Gly Glu Lys Gly Ile Gly His Thr Thr Gly Lys
50 55 60

Pro Leu His Phe Lys Gly Cys Pro Phe His Arg Ile Ile Lys Lys Phe
65 70 75 80

Met Ile Gln Gly Gly Asp Phe Ser Asn Gln Asn Gly Thr Gly Gly Glu
85 90 95

Ser Ile Tyr Gly Glu Lys Phe Glu Asp Glu Asn Phe His Tyr Lys His
100 105 110

Asp Arg Glu Gly Leu Leu Ser Met Ala Asn Ala Gly Arg Asn Thr Asn
115 120 125

Gly Ser Gln Phe Phe Ile Thr Thr Val Pro Thr Pro His Leu Asp Gly
130 135 140

Lys His Val Val Phe Gly Gln Val Ile Lys Gly Ile Gly Val Ala Arg
145 150 155 160

Ile Leu Glu Asn Val Glu Val Lys Gly Glu Lys Pro Ala Lys Leu Cys
165 170 175

Val Ile Ala Glu Cys Gly Glu Leu Lys Glu Gly Asp Asp Gly Gly Ile
180 185 190

Phe Pro Lys Asp Gly Ser Gly Asp Ser His Pro Asp Phe Pro Glu Asp
195 200 205

Ala Asp Ile Asp Leu Lys Asp Val Asp Lys Ile Leu Leu Ile Thr Glu
210 215 220

Asp Leu Lys Asn Ile Gly Asn Thr Phe Phe Lys Ser Gln Asn Trp Glu
225 230 235 240

Met Ala Ile Lys Lys Tyr Ala Glu Val Leu Arg Tyr Val Asp Ser Ser
245 250 255

Lys Ala Val Ile Glu Thr Ala Asp Arg Ala Lys Leu Gln Pro Ile Ala
260 265 270

Leu Ser Cys Val Leu Asn Ile Gly Ala Cys Lys Leu Lys Met Ser Asn
275 280 285

Trp Gln Gly Ala Ile Asp Ser Cys Leu Glu Ala Leu Glu Leu Asp Pro
290 295 300

Ser Asn Thr Lys Ala Leu Tyr Arg Arg Ala Gln Gly Trp Gln Gly Leu
305 310 315 320

Lys Glu Tyr Asp Gln Ala Leu Ala Asp Leu Lys Lys Ala Gln Gly Ile
325 330 335

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340 345 350

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Phe Ala
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<210> 12
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<212> DNA
<213> Homo sapiens

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<213> Homo sapiens

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Val Ser Tyr Gln Val Ile Thr Ser Leu Leu Leu Gly Thr Leu Ile Phe
35 40 45

Cys Ala Val Leu Gly Asn Ala Cys Val Val Ala Ala Ile Ala Leu Glu
50 55 60

Arg Ser Leu Gln Asn Val Ala Asn Tyr Leu Ile Gly Ser Leu Ala Val
65 70 75 80

Thr Asp Leu Met Val Ser Val Leu Val Leu Pro Met Ala Ala Leu Tyr
85 90 95

Gln Val Leu Asn Lys Trp Thr Leu Gly Gln Val Thr Cys Asp Leu Phe
100 105 110

Ile Ala Leu Asp Val Leu Cys Cys Thr Ser Ser Ile Leu His Leu Cys
115 120 125

Ala Ile Ala Leu Asp Arg Tyr Trp Ala Ile Thr Asp Pro Ile Asp Tyr
130 135 140

Val Asn Lys Arg Thr Pro Arg Arg Ala Ala Leu Ile Ser Leu Thr
145 150 155 160

Trp Leu Ile Gly Phe Leu Ile Ser Ile Pro Pro Met Leu Gly Trp Arg
165 170 175

Thr Pro Glu Asp Arg Ser Asp Pro Asp Ala Cys Thr Ile Ser Lys Asp
180 185 190

His Gly Tyr Thr Ile Tyr Ser Thr Phe Gly Ala Phe Tyr Ile Pro Leu
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Leu Leu Met Leu Val Leu Tyr Gly Arg Ile Phe Arg Ala Ala Arg Phe
210 215 220

Arg Ile Arg Lys Thr Val Lys Lys Val Glu Lys Thr Gly Ala Asp Thr
225 230 235 240

Arg His Gly Ala Ser Pro Ala Pro Gln Pro Lys Lys Ser Val Asn Gly
245 250 255

Glu Ser Gly Ser Arg Asn Trp Arg Leu Gly Val Glu Ser Lys Ala Gly
260 265 270

Gly Ala Leu Cys Ala Asn Gly Ala Val Arg Gln Gly Asp Asp Gly Ala
275 280 285

Ala Leu Glu Val Ile Glu Val His Arg Val Gly Asn Ser Lys Glu His
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Leu Pro Leu Pro Ser Glu Ala Gly Pro Thr Pro Cys Ala Pro Ala Ser
305 310 315 320

Phe Glu Arg Lys Asn Glu Arg Asn Ala Glu Ala Lys Arg Lys Met Ala
325 330 335

Leu Ala Arg Glu Arg Lys Thr Val Lys Thr Leu Gly Ile Ile Met Gly
340 345 350

Thr Phe Ile Leu Cys Trp Leu Pro Phe Phe Ile Val Ala Leu Val Leu
355 360 365

Pro Phe Cys Glu Ser Ser Cys His Met Pro Thr Leu Leu Gly Ala Ile
370 375 380

Ile Asn Trp Leu Gly Tyr Ser Asn Ser Leu Leu Asn Pro Val Ile Tyr
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Ala Tyr Phe Asn Lys Asp Phe Gln Asn Ala Phe Lys Lys Ile Ile Lys
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33